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(54) Title: RNA INTERFERENCE COMPOSITIONS AND METHODS

(57) **Abstract:** The invention provides isolated nucleic acids. For example, the invention provides isolated nucleic acids having at least one strand with both sense and antisense sequences that are complementary to each other. The invention also provides isolated nucleic acids having at least one strand that is a template for both sense and antisense sequences that are complementary to each other. In addition, the invention provides cells, viruses, and transgenic animals (e.g., transgenic non-human animals) containing one or more of the isolated nucleic acids provided herein as well as methods for using one or more of the isolated nucleic acids provided herein to reduce the level of an RNA (e.g., an mRNA) within a cell.

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